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## ARTICLE II.

*Descriptions of new North American Insects, and Observations on some already described. By Thomas Say.—Continued from Vol. IV., N. S., p. 470. Read June 17, 1836.*

### ALEOCHARA, Grav.

9.\* *A. simplicicollis*. Blackish; antennæ, feet, inner tip of the elytra and posterior margins of the segments of the tergum reddish brown.—Inhab. Missouri.

*Body* with short prostrate hairs: *head* black: *antennæ* reddish brown; transverse joints somewhat darker: *elytra* on the sutural margin, particularly towards the tip, obscure reddish brown; common emargination at tip very obvious: *tergum* with the posterior margins of the segments dull reddish brown: *feet* reddish brown or honey-yellow.—Length about one-tenth of an inch.

Distinguished from the two preceding species by the simplicity of the thorax and the margined segments of the tergum.

10. *A. falsifica*. Black; with converging hairs; elytra and feet yellowish.—Inhab. Indiana.

*Body* black, with rather long, prostrate hairs: *head* with the hairs

\* In the description of the preceding species (*A. semicarinata*, see Vol. IV., N. S., p. 470), the following details were accidentally omitted:—

Length less than one-tenth of an inch.

Resembles *A. propera*, but may be distinguished by the double thoracic groove, forming an inclined carina.

converging to the middle line, and directed forward: *antennæ* blackish; basal joints obscure piceous: *palpi* dull yellowish: *thorax* with the hairs converging to the middle line and directed forwards: *elytra* dull yellowish, darker on the base, suture and outer margin; the hairs somewhat arranged so as to resemble striæ: *feet* honey-yellow.—Length about one tenth of an inch.

11. *A. verna*. Black; distinctly punctured; inner top of the elytra dull yellowish.—Inhab. Missouri.

*Body* with scattered hairs: *head* polished, with sparse irregularly arranged, rather large punctures: *antennæ* of the basal joints hardly tinged with piceous: *thorax* polished, with numerous, rather large, unequal and irregularly scattered punctures; middle line destitute of punctures: *feet* black-piceous.—Length about one tenth of an inch.

The more conspicuous and irregular puncturing will distinguish this species from the above described.

12. *A. exigua*. Black; punctured; antennæ and feet hardly tinged with piceous.—Inhab. Indiana.

*Body* black, a little polished, with short hair; punctures numerous, somewhat regular: *antennæ* at base, and *palpi* very slightly tinged with piceous: *elytra* a little indented at the scutel; at tip the common emargination obtuse, not profound: *feet* black-piceous.—Length one-twentieth of an inch.

13. *A. minima*. Black; elytra and feet dull yellowish.—Inhab. Indiana.

*Body* black, with numerous prostrate hairs: *antennæ* towards the base with a very slight tinge of piceous: *elytra* dull yellowish: *tergum* dirty yellowish at tip: *feet* whitish-yellow, dull.—Length nearly one tenth of an inch.

Var. *a*. Thorax nearly the colour of the elytra.

14. *A. bilobata*. Dark reddish brown; thorax subcordate, canaliculate, feet pale.—Inhab. Missouri and Indiana.

*Body* very dark reddish brown, with numerous regular punctures: *antennæ*, two basal joints paler: *mouth* beneath, excepting the terminal joints of the maxillary palpi, pale testaceous: *thorax* rounded before and narrower behind; very deeply canaliculate; groove abruptly abbreviated on the basal margin: *elytra* at tip and sides with smaller

punctures than the thorax; suture indented: *feet* pale testaceous: *tergum*, segments with dilated punctures at base.—Length less than three-twentieths of an inch.

The thoracic canal is less dilated, but at least as profound as that of the *canaliculata*, Grav.; the thorax is more contracted behind, and the head more prominent, and distinctly separate from the thorax by a short neck.

The genus *Aleochara*, as is obvious to entomologists, needs reformation. The present species, and some others of Gravenhorst's first divisions, may be separated from it under the following name and characters.

Genus *Aleodorus*. Head prominent, with a distinct neck, not inserted into the thorax; antennæ inserted into the anterior internal orbit of the eye; three basal joints longest; maxillary palpi long, terminal joint acicular; thorax longitudinal, rounded on the sides, or without lateral edge; feet simple.\*

#### BUPRESTIS, F.

1. *B. virginica*. Turton's Linn. p. 411; Drury's Ins., vol. I., p. 66, pl. 30, fig. 3.

This species very closely resembles *B. mariana*, L., and notwithstanding the magnitude of Drury's figure, it is somewhat smaller than the latter species, the posterior part of the thorax is a little narrower and the curvature of its lateral edge is somewhat different. It inhabits the eastern and middle states.

2. *B. liberta*, Germ. This differs more in colour from the *virginiensis*, than the latter species does from the *mariana*; but it corresponds with *virginiensis* in the form of the thorax. I am still inclined to consider it a variety of that species, which Germar does not refer to in his description of *liberta*.

3. *B. lurida*, F. (and Melsh. Catal.)

This is the *corrosa*, Deg. MSS. Herbst. Olivier did not observe the anal points, which are sometimes obscured by the hair.

\* I am indebted to Professor Wiedeman for the two very useful works on "Coleoptera Microptera" by Gravenhorst. They contain detailed descriptions of many North American species of the Linnæan genus *Staphylinus*, which now constitute a large family.

4. *B. divaricata*, Nob. That this insect is closely allied to *acuminata*, F., there can be no doubt, and Dejean (in a letter) considers it the same; but, on reference to the description of that species by Gyllenhal (*Insecta Svecica*\*), I find the following characters, "thorax ante scutellum puncta duo impressa: anus emarginatus." In the present species is only a single indentation at the base of the thoracic groove, and immediately anterior to the scutel, and the anus is tridentated, the middle tooth being more slender and acute. A variety in my collection is destitute of the punctured striæ of the elytra.

4. *B. obscura*, F. (and Melsh. Catal.)

Herbst says the side of the thorax is rectilinear, not arcuated. This would agree better with *lurida*, F.; my specimens of *obscura* are rectilinear only from before the middle to the base.

5. *B. dentipes*, Germar. This is the *characteristica* of Melsheimer's Catalogue; but, as no mere catalogue can establish a name, Germar's must be of course retained, because it is the first name recognizable by a description.

6. *B. hybernata*, F. From the specimen in my collection, I am led to believe that the *hybernata*, F. is but a variety of the *frontalis*, Olivier, and that both have serrate elytra; but I have not at present the means of referring to Olivier's work. My specimen is reddish purple; thorax immaculate; elytra serrate, with but five green spots; and the anterior thighs are armed with a prominent tooth.

7. *B. sexguttata*, Nob. (*Journ. Acad. Nat. Sc.*). This name being preoccupied by Herbst for an American species, we change it to *sexsignata*.

8. *B. gibbicolis*, Nob. (*Journ. A. N. S.*). This name is pre-occupied by Illiger for an European species, it must therefore be changed.

9. *B. pulchella*, Herbst. The *volvulus*, F. is probably the same species; but which of the two names has the priority I cannot now ascertain, not having the date of Herbst's volume. There is some confusion amongst the species of the small group to which this belongs, in consequence of the short descriptions of Fabricius. Herbst's description of this species cannot well be mistaken. I have found it in Penn-

\* For this very accurately descriptive work, I am indebted to the politeness of the author.

sylvania, Florida and Arkansa. It is the *ornata* of Dejean's Catalogue; and Germar, in a letter, considers it a new species under the name of *olydonia*.

10. *B. ornata*, F. About the size of the preceding, though perhaps a little more robust, of a much darker colour; and may also be distinguished from it by the thorax having the dorsal line deeply indented, more especially on the posterior margin, and being obtusely angulated behind the middle of the lateral edge. Dejean supposed it a new species, and gave it, in MSS., the name of *multiguttata*, but I think there is no doubt that it is the Fabrician species.

11. *B. tubulus*, F. This species is described as having but five yellow punctures on the elytra, placed 2.2.1, the latter being the largest. But it varies considerably in this respect, sometimes having eight or nine spots, and again other specimens occur with not more than are indicated by Fabricius, if we consider the posterior larger one as being composed of two confluent ones. The rest of the description agrees precisely, and even the noted size corresponds with our insect; as Fabricius says, "statura omnino *B. volvuli*, at duplo minor." It may indeed be at once distinguished from *pulchella* by its much inferior size, very different colour, and the greater regularity of its elytral spots; but the lateral edge of its thorax has a similar curvature. It is the smallest of our species of the group distinguished by the want of scutel, &c., and approaches the *ornata* by its colouring and the somewhat similar arrangement of the elytral spots, but differs in the regular curvature of its lateral thoracic edge. It is the *volvulus* of Dejean's Catalogue. Germar believed it new and gave it the name of *xanthocyma*; it is the *culta* of Weber; and Dr Harris has described it under the name of *geranii*.

12. *B. acornis*. Brassy black; antennæ short; scutel green; beneath cupreous.—Inhab. Indiana.

*Body* with dense, rather large, confluent punctures: *head* a little tinged with cupreous, particularly towards the tip; tip of the clypeus not narrowed, not emarginate, but with a slight concave curvature: *labrum* hardly prominent, not visible when viewed from above: *antennæ* very short, not reaching the vertex, the three basal joints together about as long as all the others combined: *thorax* in breadth at least

twice the length, with transverse confluent punctures: *scutel* bright green: *elytra* with transversely confluent punctures; serrate from near the humerus; surface obsoletely undulated: *beneath* cupreous: *anterior thighs* with a prominent acute spine.—Length seven-twentieths of an inch.

A small and distinct species.

13. *B. impedita*.\* Elytra bluish-green, grooved and punctured.—Inhab. Pennsylvania.

Head confluent punctured, green with a cupreous reflection: *antennæ* steel-blue, at base green: *labrum* green, ciliate at tip: *thorax* cupreous, with green confluent punctures; on some parts of the disk the punctures are sparse: *scutel* oval, regularly concave, green: *elytra* densely punctured, with five dilated grooves and four elevated lines, the latter sparsely punctured; green, gradually shaded into a blue vitta along the middle; suture and outer margin cupreous; tip somewhat truncated: *beneath* green cupreous.—Length three-fifths of an inch.

The specimen was taken near Philadelphia. It is evidently related to *salisburyensis*, as described by Weber, to *decora*, F., and *splendens*, F. of China. But Weber's description states the former to have striated elytra, without elevated lines. The *splendens* has only three elevated lines on the elytra, and the *decora* is larger, with the tip of the elytra two-toothed. Neither can it be the *striata*, Oliv., as the elytra are not slightly bidentate, nor are their two inner elevated lines abbreviated. A variety found by my brother, B. Say, in New Jersey, is much tinted with copper, and is smaller, but the sculpture and form are the same.

I may add, as closely allied to the *impedita* and to the *salisburyensis*, Web., in point of colouring, a specimen which I found in New Jersey many years since, and which I then described under the name of *ultramarina*; but the description was mislaid and never published, and the specimen is now deprived of its head and thorax. The following is a description of what remains of it.

\* Dr Harris is of opinion that this species, the *aurulenta* of Linnæus and Olivier, and the *striata* of Fabricius are the same; and that the *decora*, F. and *salisburyensis*, Weber and Herbst, are identical. The latter differ from the *aurulenta*, L. in not having elevated lines on the elytra.

*Scutel* orbicular, disk indented: *elytra* blue on the disc; submargin and subsuture green, passing into golden towards the margin and suture, which are brilliant coppery or red golden; basal margin green golden; surface with seven or eight striæ of dilated profound punctures; the interstitial lines with each a single series of smaller punctures; no elevated lines; tip *truncated*, with a slight projection at the inner angle: *beneath* green-golden, with a slight coppery tinge: *tibiæ* coppery.—Length of the elytra two-fifths of an inch.

It is more brilliant than either the *impedita* or *salisburyensis*. From the former it is distinguished by being destitute of elevated lines on the elytra, and from both by its regular series of large profound punctures.

14. *B. viridicornis*, Nob. This has been mistaken by an European entomologist for the *agrilus ruficollis*, F.; but it is very different in form, which is much more like that of a true *Buprestis*; and the colour is also different, though that of the head and thorax probably deceived him, being coppery in each, though much more obscure in our insect. I have taken a variety in this state differing greatly in colour, so much so, that it might lead to error unless actually compared.

The colour is bright green; thorax on the disc tinged with coppery, with a common green triangle extending from the humerus to beyond the middle; beneath the green colour is less brilliant. Another variety has the cupreous colour of the thorax confined to the lateral margin, the remainder being of the colour of the elytra.

I may add to the specific description that the head has an orbicular indentation between the eyes, and a slightly indented line on the vertex; the scutel is altogether destitute of a transverse elevated line; it is convex, and widely triangular; the elytra are minutely serrate at tip.

This species has characters in common with *buprestis* and *agrilus*, and it may perhaps belong to the latter.

#### AGRILUS, *Megerle*.

1. *A. ruficollis*, F. We may add to the Fabrician characters that the head is profoundly indented on the vertex; the indented line is continued down the front; the elytra are scabrous, and at tip, as well as that of the abdomen, serrate.

Var. *A*. Thorax obscure green.



Var. *B.* Thorax colour of the elytra.

The great indentation of the vertex distinguishes this species from others of this country. Herbst's figure only tends to mislead, if indeed it can be intended for this insect at all. It is too robust, the thorax is not represented as indented, and the elytra are punctured in striæ, with large punctures.

2. *A. geminatus*, Nob. A numerous species; the colour of the head and thorax often resembling those of the preceding species, but the acute, arcuated, elevated line at the posterior angles, is similar to that of the *linearis*, F. of Austria, which it very much resembles.

3. *A. politus*, Nob. Much like *arcuatus*, but a little more robust, and of a brilliant colour. Like the other species its elytra are denticulated at tip. Having examined numerous specimens, I find that it is not of a larger size than *geminatus*.

4. *A. arcuatus*, Nob. A little larger than *geminatus*, and resembling it in the character of the elevated line at the posterior thoracic angles, but the antennæ are much more slender and elongated.

5. *A. granulatus*, Nob. This species has three hardly visible fulvous spots on the elytra; one on the depressed base, one near the suture before the middle, and one behind the middle, also near the suture. I have a specimen in which these spots are not at all visible.

The elevated line at the posterior angles of the thorax is short, but very obvious.

6. *A. bilineatus*, Weber, Nob. In my printed description an error occurs. When describing the elytral vittæ, instead of "extended towards the tip, where it gradually approaches the scutel," I should have said *suture* instead of "scutel."

7. *A. lateralis*, Nob. I stated in the description that the elytra are entire; I would add that they are not obviously denticulated at tip.

8. *A. pusillus*, Nob. The smallest North American species I have yet seen.

The above species of *agrilus*, excepting the first, I described in the Journal Acad. Nat. Sc. and the Annals of the Lyceum of Nat. Hist. of New York, under the genus *Buprestis*, to which most entomologists yet refer their kindred species.

9. *A. fallax*. Elytra with about three spots on each, which exhibit a different reflection.—Inhab. Indiana.

Brassy-greenish: *head* green, sometimes cupreous on the vertex; impressed line hardly obvious: *thorax* with a dorsal and lateral indented line; the former more obvious behind, the latter oblique and dilated; more or less tinged with cupreous; an arcuated, elevated line at the posterior angles; posterior angles acute: *elytra* with the basal indentation, subsutural spot behind the middle, composed of minute prostrate hairs, producing a different reflection from that of the general surface; tip denticulate: *beneath* blackish-brassy.

Var. *A.* Dull cupreous; thorax brighter.

Length more than one-fifth of an inch.

Distinguished by the elytral spots offering a different reflection from the remainder of the surface. In some positions they are hardly obvious; but seen from before or behind they are distinct, particularly the posterior one.

10. *A. putillus*. Thorax transversely indented before and behind the middle; elevated line of the posterior angle none.—Inhab. Indiana.

*Body* blackish-brassy: *head* greenish; longitudinal impressed line very distinct: *thorax* with a transverse indentation before, a much larger transverse indentation behind the middle, and a more profound lateral one parallel with the lateral margin; posterior angles destitute of an elevated line, rectangular or rather more obtuse; *elytra*, basal indentation ovate-oblong, oblique; tip denticulated, from the suture to the middle concave; suture rather prominent.—Length over one-tenth of an inch.

Only three of the before mentioned species are destitute of an elevated line at the posterior thoracic angles, viz. the *ruficollis*, *bilineata* and *lateralis*, to these we may add the *cogitans*, Weber. From all these the present is separable by its inferior size, excepting the *lateralis*, which has no denticulations at the tip of the elytra. One of my specimens has the head green before.

11. *A. otiosus*. Line of the thoracic angles short and obtuse; front but slightly punctured.—Inhab. Indiana.

*Body* greenish, or brassy-blackish, rather slender: *head* with the punctures obsolete, excepting on the vertex, where they are not pro-

found or well defined; beneath the middle of the front with short whitish hairs: *thorax* with two slight indentations placed longitudinally, a more obvious one on the lateral margin, and another each side of the basal middle; elevated line of the posterior angles less than one-fourth of the length of the lateral edge, but slightly elevated and obtuse: *elytra* depressed from the suture to the middle; tip denticulated.—Length nearly one-fifth of an inch.

Resembles *geminatus*, but its form is rather more slender, the frontal punctures are obsolete, and the elevated line of the thoracic angles is much shorter and less distinct.

12. *A. cogitans*, Weber. The thorax is described to be serrate; but on close examination the edge will be found to be entire, and the upper surface of the edge, or extreme margin only, is serrate. The body is more dilated than in any other of our species.

### TRACHYS, F.

1. *T. tessellata*, F.

2. *T. ovata*, Weber, Obs. p. 76.

Our species vary greatly, or are very numerous.

### GENUS METONIUS, Say.

Thorax short, wide, and deeply emarginate before for the reception of the head; not lobate behind: antennæ subclavate, concealed when at rest in a groove of the thorax; body short, wide before and narrow behind: tibiæ angulated, and when at rest the tarsi are applied to the outer edge: præsternum prominent to the mouth, and behind applied evenly to the poststernum by a transverse line.

This genus differs from *Trachys* in the thorax being not lobed behind; in the præsternum terminating by a straight line; by the dilatation of the tibiæ, &c.

1. *M. ovatus*, Nob. (*Trachys*) Ann. Lyc. New York. Those who will retain this species in *Trachys* must change the name to *lævigatus*, as the other is preoccupied in that genus.

2. *M. purpureus*. Ovate, black; elytra purple.—Inhab. Indiana.

*Body* black: *head* with distinct punctures; front with an indented,

abbreviated line placed low down: *thorax* with scattered discoidal punctures; no lateral indentation: *elytra* purple; indented at the middle of the base and behind the humerus; punctures rather large but not deeply impressed, placed in series and obsolete behind: *tibiæ* angulated.—Length under three-twentieths of an inch.

This insect is certainly congeneric with the preceding, but it cannot be placed in *Trachys*, or even in *Aphanisticus*, if *pusillus*, Olivier, can be considered as a type of it.

### APHANISTICUS, *Latr.*

*A. gracilis*, Nob. (*Trachys*) Ann. Lyc. New York. The thorax is not laterally dilated and reflected.

### MELASIS, *Oliv.*

*M. nigricornis*, Nob., Journ. A. N. S.

I was deterred from referring this species to *Cerophytum*, Latr., by the character “le pénultième article des tarses bifide. Le corps est ovale.” Our insect cannot therefore be the *Melasis picea*, Beauv., which is referred to *Cerophytum*.

### ELATER, *L.*

† *Tarsi not lobed beneath.*

1. *E. oblessus*, Nob. (*discoideus*, Fabr.). The Fabrician phrase, when describing the elytra, is, “elytra striata, atra, margine baseos lateraliq[ue] late albo;” but as the whitish portion occupies about two-thirds of the whole surface and might lead to error, it would be better to say, *elytra whitish, with the sutural margin and exterior edge excepting at base, black.*

I change the Fabrician name, because it is preoccupied by Weber for a very different species of this country.\*

2. *E. morio*, F. Herbst. *E. lævigatus*, F. Herbst. *E. piceus*, Degeer, Turton's Linn.

\* Dr Harris says that Weber's species, here referred to, is the *hematus* of Fabricius; and that Mr Say does not seem to have known the *Elater discoideus* of Fabricius, which is quite distinct from the above named *oblessus*.

This species is subject to vary through all the intermediate gradations between smooth elytra and deeply striated elytra; which is the cause why several species have been made of it. The lateral edge of the thorax is grooved.

3. *E. abruptus*, Nob., Ann. Lyc. Nat. Hist. New York. Like *morio*, but more convex above, more impressed at the junction of the thorax and abdomen; more densely and minutely punctured; a little more robust; each joint of the antennæ originates much nearer the posterior angle of the preceding joint; and the lateral edge of the thorax is destitute of a groove, of a somewhat different form, and the head is not impressed, but is rounded on the front.

4. *E. attenuatus*. Reddish brown; elytra somewhat attenuated, blackish and mucronate behind.—Inhab. U. S.

*Body* bright reddish-brown, almost sanguineous, with small close set punctures: *head* not indented before: *antennæ*, joints not elongated: *thorax* convex, lateral margin arcuated; narrowed before; line from the posterior angle rectilinear, acute, diverging from the lateral edge so as to be as near to the inner edge: *region of the scutel* rather widely indented: *elytra* with smaller punctures than those of the thorax; with obsolete striæ; terminal oblique third black; tip somewhat attenuated and mucronate: *feet* a little darker.—Length four-fifths of an inch.

A variety occurs of which the elytra are obscure, but still the terminal third, and the exterior margin also, are black. In a particular light is a slight sericeous effect.

5. *E. viridipilis*, Nob. The thorax in form resembles those of *oculatus* and *myops*, F. but is proportionally longer.

The posterior angles are curved considerably downward. It is rare.

6. *E. cylindrifomis*, Nob. In the description "a prominent edge above the antennæ, which disappears before;" instead of the three last words, read, *which is obtusely emarginate*. The head, thorax and base of the elytra have rather long, prostrate hairs; the remainder of the elytra has short hairs. Tarsi simply hairy beneath.

It may be referred to the genus *Campylus*, Fischer, but the head is inserted nearly to the eyes in the thorax; and the palpi are hardly filiform.

7. *E. rubricollis*, Herbst, Nob. (Journ. Acad. Nat. Sc.). This is the *verticinus*, Beauvois, but I do not know which has the priority.\*

8. *E. limbalis*. Thorax fulvous, disc black; elytra blackish, with a testaceous margin.—Inhab. U. S.

*Head* blackish; *antennæ* wide, deeply serrate; three basal joints taken together not longer than the fourth joint; second and third very short, equal transverse: *thorax* fulvous-testaceous: disc in the middle, basal and posterior part of the lateral margin black: *elytra* testaceous all around and blackish along the middle: beneath blackish piceous; pectus with an oblique, fulvous spot near the posterior angles: *feet* piceous.—Length less than half an inch.

This is the *limbalis* of Melsh. Catal., and I have it noted in my MSS. interrogatively as the *limbalis* of Herbst, but I have not now his work to refer to.

9. *E. ectypus*. Blackish brassy; antennæ and feet rufous; thoracic spines very short.—Inhab. U. S.

Blackish or dark brown, tinged with brassy: *clypeus* very obtuse, almost truncated before, not appressed; above plane, with two obsolete indented lines: *antennæ* dark rufous, not dilated, and hardly serrate; second joint more than two-thirds the length of the third; terminal joint not abruptly contracted near the tip: *thorax* convex; dorsal line obvious; spines short, their excurvature hardly obvious, carina nearly parallel with the exterior edge: *scutel* a little convex: *elytra* with punctured striæ; interstitial spaces with numerous, small, definite, orbicular punctures: *feet* rufous: *tarsi* simple.—Length nine-twentieths of an inch.

It may be distinguished from the *appresifrons*, Nob., which it resembles, by the more convex thorax, of which the spines are much shorter and not much excurved; the antennæ are more slender, and the terminal joint is not abruptly narrowed near its tip, and the punctures of the interstitial spaces of the elytra are obviously orbicular, and definite.

10. *E. pyrrhos*, Herbst. Elongated: the thorax is narrow, the spines

\* Dr Harris remarks that Herbst's name undoubtedly has the priority; for that of Palisot de Beauvois does not seem to have been sanctioned by a description.

hairy: the joints of the antennæ are in length about three times their greatest breadth, even the second joint is in the same proportion with respect to the third: the length of the antennæ is equal to half that of the body: clypeus subquadrate, concave towards the tip.—Length seven-tenths of an inch.

11. *E. sulcicollis*, Nob. (*E. parallelus*, Say, Ann. Lyc. New York). Dejean informs me that the name *parallelus* is preoccupied, and proposes to substitute for it that which I now give. An expressive name would be *inversicollis*, the thorax being as wide, or rather wider before than behind.

12. *E. viridis*, Nob., Ann. Lyc. New York. Antennæ short: joints in their greatest breadth nearly equal to their length; second joint hardly half as long as the third: clypeus at tip not prominent, but only distinguished by a line: thoracic spines with a carinate line parallel to the exterior edge.

13. *E. auripilis*, Nob., Journ. Acad. Nat. Sc. I obtained another specimen in the N. W. Territory.

It is remarkable for the deep indentations of the clypeus.

14. *E. semivittatus*, Nob., (Ibid.). In the only specimen at present in my cabinet, is a transverse indented line in the middle of the lateral margin: the thoracic dorsal line is polished behind the middle.

15. *E. obesus*, Nob. (Ibid.). The clypeus is not prominent, and the thoracic spines are not carinated; the elytra, in one specimen, are acuminate at tip: the nails are very robust on the basal half, which terminates at the middle in a prominent tooth, separated by a deep fissure.

16. *E. viridanus*, Nob. (Ann. Lyc. Nat. Hist.). The thorax has two orbicular indentations before the middle.

17. *E. mancus*, Nob. (Journ. A. N. S.). Second joint of the antennæ rather longer than the third. Clypeus not prominent.—Inhab. New Hampshire, Harris.\*

\* [Among Mr Say's suppressed descriptions is the following, which may be of use in determining the species, and is therefore worth preserving.]

18. *E. linteus*. Black; elytra whitish, tip and sutural edge black.—Inhab. U. S.

Body black: clypeus not prominent, rounded at tip: antennæ robust, deeply serrate; second joint transverse, nearly orbicular, very small: thorax gradually narrowed before by a

18. *E. convexus*, Nob. (Journ. A. N. S.). With a good magnifier the interstitial lines appear to have minute punctures; the third and fourth, and fifth and sixth striæ of the elytra are confluent before the tip.

19. *E. cardisceæ*. Thorax rounded, convex, with an elongated lateral fissure at base.—Inhab. U. S.

*Body*, blackish: *head* with short, dense, prostrate, cinereous hair; clypeus elevated above the front, edge a little reflected: *antennæ* nearly as long as the thorax, second joint shorter than the third: *thorax* elevated, convex, with a slight violaceous tinge, and short, prostrate, cinereous hair; regularly arcuated each side; lateral edge hardly raised, placed low down and obsolete before the middle; basal margin profoundly bisinuate, with an elongated fissure near the lateral angles and a small prominence in the middle; angles short, abrupt: *scutel* cordate, having a basal fissure: *elytra*, striæ deeply impressed, third and fourth, fifth and sixth confluent before the tip; very short hair; interstitial lines convex, minutely rugulous, an obsolete paler spot in the middle and another beyond the middle: *beneath* slightly tinged with violaceous: *tibiæ* and *tarsi* dark rufous.—Length three-tenths of an inch.

I have taken it in Pennsylvania, and Dr Harris in Massachusetts. It resembles *convexus*, S., but the thorax is much more narrowed behind, &c.

20. *E. discalceatus*. Clypeus prominent, triangularly impressed.—Inhab. New Hampshire.

*Body* hairy, rufous; discs of the thorax and elytra a little dusky: *head* densely punctured; clypeus prominent and obtuse before, with a larger triangular indentation: *thorax* a little dusky on the anterior margin; posterior angles a little excurved, obtuse, carinated line pro-

rectilinear edge almost to the anterior margin; an impressed line at base; posterior angles carinate, rather acute: *scutel* convex, acute behind: *elytra* whitish, with striæ of dilated punctures; tip black; a narrow, black, sutural margin, and exterior edge, behind the middle, black: *feet* piceous: *tarsi*, fourth joint hardly shorter than the third.—Length over three-tenths of an inch.

Can this be the *mixtus*, Herbst? It is the *deustus* of Melsheimer's Catalogue? a name preoccupied by Thunberg for a species of Ceylon.

[This description Mr Say originally arranged immediately after that of *E. mancus*, in the papers printed at New Harmony, during the summer of 1834, but omitted it with the following remark:]

Leconte says that it is the *lugubris*, Beauv.



minent, acute, not parallel with the edge: *elytra* with the punctures of the striæ not longer than broad: *beneath* much paler.—Length nearly half an inch.

The antennæ are not longer than the thorax, and the terminal joint is not remarkably contracted near its tip. The individual was sent to me for examination by Dr Harris. It resembles *cucullatus*, S., but is destitute of tarsal lobes.

21. *E. apicatus*. Elytra bright rufous, black at tip.—Inhab. New Hampshire.

*Body* black, with short yellowish hairs: *clypeus* convex, anterior edge not obtusely rounded, declining, but distinct at tip: *antennæ* dark piceous, rather shorter than the thorax, second and third joints subequal: *thorax* wider at the posterior angles; lateral edge rectilinear from the middle to the tip of the posterior angles, which are prominent and acute: *elytra* bright rufous, with a longitudinal black spot at tip; striæ impressed, rather wide, punctured; interstitial spaces convex, punctured: *tarsi* piceous.—Length nine-twentieths of an inch.

The specimen was kindly sent to me by Dr Harris for examination. Resembles *sanguinipennis*, S., but is larger, with a black spot at tip of the elytra.

22. *E. hamatus*. Blackish, thorax with golden hair; elytra whitish, with a dusky hooked line at tip.—Inhab. Massachusetts.

*Body* blackish piceous: *antennæ* dull rufous, hardly as long as the thorax, second and third joints subequal, ultimate joint oval, not longer than the preceding one: *thorax* convex; posterior angles excurved, prominent, obtuse at tip; hairs golden, prostrate; carinated line parallel to the edge: *elytra* yellowish-white, with a piceous vitta on the outer margin from the tip to near the middle, where it curves inward and backward towards the suture and tip; striæ impressed and punctured: *feet* rufous.—Length over two-fifths of an inch.

Sent to me by Dr Harris.

23. *E. fallax*. Clypeus appressed to the front anteriorly; posterior thoracic angles short.—Inhab. New Hampshire.

*Body* blackish-piceous, with yellowish sericeous hair: *clypeus* anteriorly confluent with the front: *antennæ* about as long as the thorax; joints hardly longer than their greatest breadth: *thorax* narrowed before;

lateral edge a little arcuated; punctures minute; posterior angles short, rather wide, scarcely excurved; carina short; basal margin somewhat depressed, with a longitudinal indentation in the middle, and a slender impunctured line extends to the anterior edge: *elytra* striate, the striæ not very obviously punctured, third and fourth confluent before the tip; greatest breadth posterior to the middle: *tibiæ* and *tarsi* rufous.—Length two-fifths of an inch.

This species was sent to me by Dr Harris. The particular disposition of the hair on the elytra of the specimen gives the appearance of a broad band at base, another beyond the middle, and a subsutural spot in the middle, blackish.

24. *E. armus*. Black; shoulder rufous.—Inhab. U. S.

*Body* black: *clypeus* with large punctures, somewhat triangularly depressed; anterior edge obtusely arcuated, distinct from the anterior part of the head: *antennæ*, joints as broad at tip as long, second and third equal, terminal one large, ovate acute, not abruptly smaller towards the tip: *thorax* convex; punctures rather distant, larger before; lateral edge subrectilinear, a little undulated; posterior angles short, their exterior edge very much arcuated, so that the tip points inward and backward, carina diverging and distant from the edge, and not very obvious: *elytra* with punctured striæ, third and fourth confluent before the tip; interstitial spaces punctured; humerus rufous.—Length one-fourth of an inch.

Different from *scapularis*, S., of which the tarsi are lobed. It inhabits the middle states, and Dr Harris sent me one from Massachusetts.

25. *E. agonus*. Posterior thoracic angles very short and rounded; *antennæ* longer than the thorax.—Inhab. Massachusetts, Harris. Pennsylvania.

*Body* violaceous-blackish: *clypeus* very obtuse before and hardly distinct from the anterior part of the head; punctures small: *antennæ* rufous, the tip of the ninth joint reaching the tip of the posterior thoracic angle, third joint a little longer than the second, which is globular; terminal joint obtuse at tip: *thorax* with small punctures, and, like the head, with prostrate hair; lateral edge slightly arcuated to each extremity; at base an impressed line in the middle, and an oblique one each side; posterior angles very short, obtusely rounded: *elytra* with

short hairs, dull rufous, with punctured striæ, of which the third and fourth are confluent before the tip: *feet* and *venter* on the margin rufous.—Length seven-twentieths of an inch.

The posterior thoracic angles are unusually short and rounded.

26. *F. vernalis*, Hentz. Also inhabits Indiana. I obtained several specimens in the autumn on the root of an overturned tree.

27. *E. hieroglyphicus*, Harris; Catal. Bronzed-black; elytra pale rufous, with two undulated black bands.—Inhab. Massachusetts and New Hampshire. Harris. Pennsylvania.

*Body* short, robust: *head* with yellow prostrate hair: *clypeus* angulated before and but little elevated: *antennæ* rufous; second joint half as long as the third; last joint not larger than the preceding one: *thorax* convex, covered with prostrate, yellow hair, lateral edge regularly but not prominently arcuated; posterior angles excurved, subacute, slightly carinated, with a small sinus at their inner origin: *elytra* pale yellowish rufous, striated; striæ without very distinct punctures, third and fourth confluent before the tip; interstitial spaces punctured; a blackish undulated band from the humerus, is connected by a subsutural blackish vitta, with another undulated band behind the middle, which is decurrent along the subsuture nearly to the tip: *beneath* tinged with rufous: *feet* rufous.—Length less than half an inch.

In some specimens the posterior band is also decurrent along the exterior margin nearly to the tip.

28. *E. choris*. Thorax rugulous, black, with yellow hairs; elytra yellowish bifasciate with black.—Inhab. Indiana.

*Body* black: *antennæ* piceous, dull yellowish at base: *thorax* longitudinally rugulous, black, with numerous, golden, prostrate hairs; posterior angles acute, but not much elongated; carinated line prominent, elongated, arcuated: *elytra* pale yellowish, with a black spot at base, an angulated band on the middle, interrupted into a spot towards the suture, and another black angulated band, dilated near the suture, which it does not reach, but passes abruptly backward towards the tip; striæ as broad as the interstitial lines: *beneath* tinged with piceous: *feet* pale yellowish.—Length one-fifth of an inch.

I took three individuals.

29. *E. dorsalis*; Nob. (Journ. A. N. S.). This name was given by

Paykull to an insect which proved to be the *marginatus*, Fabr. But if it be determined, nevertheless, that the present name be changed, that of *mellillus* may be substituted. It is found in Indiana, and I obtained a specimen at New Orleans.

30. *E. pectoralis*. Yellowish; thorax rounded; head and elytral band black.—Inhab. Missouri.

*Body* yellowish with a slight rufous tinge; punctures hardly perceptible: *head* blackish-piceous: *clypeus* very obtusely rounded at tip to the eyes: *antennæ* and *palpi* pale yellow: *thorax* with the lateral edge much and regularly arcuated to the origin of the spines, where it becomes a little excurved; spines short, acute, carinated: *scutel* suborbicular: *elytra* with obsolete striæ; a transverse black band behind the middle running down the suture and exterior margin: *pectus* with the middle segment dilated.—Length less than one-tenth of an inch.

Resembles *areolatus*, Nob., but is much smaller, the thorax more rounded, the spines smaller, the middle segment of the pectus is dilated, &c. A variety from Dr Harris has the elytral fascia extending to the tip, and in size is a little longer.

31. *E. curiatus*. Blackish; elytra yellowish with a black band; thorax with a fissure each side at base.—Inhab. U. S.

*Body* blackish-livid, with minute punctures: *clypeus* obtusely rounded, edge reflected: *antennæ* rufous, rather robust, a little serrate; second joint two-thirds the length of the third; ultimate joint hardly longer than the preceding one: *thorax* with a fissure in the posterior edge near the spines; spines not carinate, but the lateral edge is somewhat reflected: *scutel* oblong, concave: *elytra* with well impressed, punctured striæ; yellowish-white, with a dusky band on the middle expanding a little on the margin and suture: *feet* pale yellow.—Length three-tenths of an inch.

I obtained three specimens in June.

32. *E. sanguinipennis*, Nob. (Journ. A. N. S.). Closely resembles *præustus*, Fabr., which, however, has the colours much more vivid; the punctures rather larger and more dense, particularly those of the interstitial lines of the elytra; the thoracic spines longer; and the second and third joints of the antennæ of our species are more cylindrical.

33. *E. inflatus*, Nob. (Ann. Lyc. Nat. Hist.). Resembles *holosericeus*, Fabr., but is still more robust, the thoracic spines are longer, and the thoracic punctures more obvious.—Inhab. also Massachusetts. Harris.

34. *E. fenestratus*, Nob. (Ibid.). As respects the elytral spot, it may be compared to the *biguttatus*, Fabr., but is not much longer than the head and thorax of that species.

35. *E. obliquus*. Piceous; thoracic disc and elytra blackish; the latter with an oblique spot before the middle.—Inhab. Indiana.

*Body* yellowish-piceous, punctured, with yellowish hairs: *head* black: *clypeus* not much elevated, obtusely angulated at tip: *labrum* piceous: *antennæ* distinctly serrate; second joint two-thirds the length of the third; fourth to tenth subequal; ultimate one not suddenly contracted near the tip: *thorax* blackish on the disc; lateral edge arcuated near the anterior angles, rectilinear from before the middle to the tip of the spines; spines moderate, not distinctly carinate: *elytra* with punctured striæ, and slightly punctured interstitial lines; a very oblique yellowish band from the humerus, gradually dilating to the suture and terminating before the middle, leaving a rather large black scutellar area: *pectus* paler than the postpectus: *feet* paler than the pectus: *tarsi* and *nails* simple: *venter* with an obsolete darker vitta each side.—Length nearly one-fifth of an inch.

This species somewhat resembles the *areolatus*, Nob.

To this division of the genus must be added those species which I have described under the following names, viz. : *badius*, *erosus*, *rotundicollis*, *plebejus*, *erytropus*, *collaris*, *rubricus*, *mendica*, *silaceus*, *quercinus*, *basilaris*, and *areolatus*, as well as the *stigma* and *nigricollis*, of Herbst.

†† *Tarsal joints lobed beneath.*

36. *E. lobatus*, Nob. This species, Germar thinks, is the *castanipes*, Herbst; but it certainly cannot be *castanipes*, Fabr. The anterior part of the clypeus agrees with that of *Campylus*, Fischer.

37. *Bilobatus*. Dark chestnut; front indented; spines obtuse; second and third joints of the tarsi lobed beneath.—Inhab. Indiana.

*Body* dark chestnut, punctured, with numerous short hairs: *head*

with large, very dense punctures: *front* a little concave: *clypeus* not prominent, rather depressed between the antennæ: *antennæ* a little paler; second joint rather more than half as long as the third; terminal joint abruptly smaller near the tip, so as to appear like two joints: *thorax* with the punctures as large as those of the head, but less dense; spines obtuse, not elongated, destitute of carina: *elytra* with deep striæ, in which are rather large, close set punctures; interstitial lines convex, with minute punctures: *feet*, colour of the antennæ, honey-yellow; second and third tarsal joints extended beneath into a membranaceous, rounded pulvillus.—Length less than seven-tenths of an inch.

This species may be distinguished by the obtuse thoracic spines, and the lobed second and third tarsal joints.

38. *E. inquinatus*. Honey-yellowish, head and suture blackish.—Inhab. U. S.

*Body* small, honey-yellow, with short hair: *head* dusky or blackish: *antennæ* pale: *clypeus* terminating anteriorly in a rectangle: *thorax* dusky on the anterior margin; lateral edge rectilinear; posterior angles acute; base each side with an elongated fissure: *elytra*, striæ distinctly punctured; sutural margin widely dusky at base, and tapering to the tip: *beneath* reddish brown: *feet* yellowish; *tarsi* with the penultimate joint only, obviously lobed.—Length under one-fifth of an inch.

This species occurs in Pennsylvania, and Dr Harris obtained it in New Hampshire, and from North Carolina.

39. *E. memnonius*. Brown more or less dark: *antennæ* rufous, compressed; length of the joints at least twice their terminal breadth; longer than the thorax: *head* densely punctured; front concave, anterior edge depressed in the middle by the concavity, but still elevated: *thorax* densely, not confluent punctured, convex, laterally arcuated, widest in the middle; posterior angles very little excurved, and at their tips somewhat incurved; carinated line nearly parallel with the edge, elevated and acute; basal edge with an acute sinus near the posterior angles: *elytra* with punctured impressed striæ; punctures nearer each other than their own length; interstitial spaces convex, densely punctured; third and fourth striæ abbreviated and confluent at tip; apical margin a little elevated: *beneath*, margins and feet paler.—Length less than four-fifths of an inch.

*E. nemmonius*, Herbst, Melsh. Catal. p. 42.—Inhab. middle states.

Terminal joint of the antennæ abruptly smaller at tip, and the thorax is longitudinally indented behind the middle.

40. *E. baridius*. Resembles the preceding, but is much larger, more robust, the thorax more rounded each side, the second and third striæ of the elytra abbreviated and confluent at tip.—Length over nine-tenths of an inch.

Of this I have seen but one specimen, which was sent me for examination by Dr Harris. It was taken in North Carolina.

41. *Hemipodus*, Nob. (Ann. Lyc. N. Y.). Black-brown : *antennæ* with obconic-compressed joints, not obviously serrate ; second joint more than half the length of the third : thoracic spines rather short and obtuse : the carina parallel with the outer edge : *tarsi*, first, second and third joints extended beneath into pulvilli : *thorax* with a slight fissure on the basal margin, near the posterior angles.

42. *E. soleatus*. Chestnut ; clypeus prominent, rounded ; second and third tarsal joints extended beneath into a prominent lobe.—Inhab. Indiana.

*Body* dark chestnut brown, punctured ; with very numerous, short hairs, not prostrate : *clypeus* prominent before, and obtusely rounded : *antennæ* a little serrate, rufous ; second joint not longer than broad, not more than half the length of the third : *thorax* rather convex, dorsal indentation none, excepting sometimes a very slight one at base ; lateral edge rectilinear from before the middle to the tip of the spines ; spines not excurved, prominent, subacute, carinate ; the carina nearly parallel to the exterior edge : indentation between the thorax and abdomen deep ; *scutel* somewhat indented : *elytra* with punctured striæ, and with minutely and irregularly punctured interstitial lines : *beneath* rufous ; second and third joints of the tarsi each extending beneath into a prominent, flattened, membranaceous lobe, that of the third much more obvious, rounded at tip, and extending much beyond the tip of the penultimate joint, which is very small.—Length from seven-twentieths, to more than eleven-twentieths of an inch.

This varies considerably in size, and the prominent obtuse clypeus, together with the elongated, membranaceous lobe of the antepenulti-

mate tarsal joint distinguish it from other species. Resembles *cucullatus*.

43. *E. cucullatus*, Nob. (Ann. Lyc. N. Y.). May be distinguished from *soleatus* by the clypeus being obviously indented above, and more obtuse, almost emarginate on the anterior edge; the antennæ are more slender, and the last joint not, or hardly longer than the preceding one: *thorax* more slender, and the spines more obtuse, shorter, and rounded at tip: the larger lobe of the tarsi is not so prominent. The thoracic spines resemble those of *hæmoroidalis*, Fabr., but are more excurved.

44. *E. dilectus*, Nob. (Ibid.). The penultimate tarsal joint of this species is produced beneath into a membranaceous lobe. Near the description of *bilineatus*, Web., Fabr.

45. *E. vespertinus*, Fabr. The penultimate tarsal joint is minute, but is extended beneath into a dilated membranaceous lobe, half the length of the last joint. This species varies considerably; the elytra have generally a connecting black band beyond the middle; they are rarely nearly all black, with one or two small spots, tip and humerus testaceous: the thoracic vittæ are sometimes reduced to very small spots: scutel always testaceous.

46. *E. circumscriptus*, Germ. The penultimate tarsal joint is at least half the length of the last, and is produced beneath into a lobe.

47. *E. bisectus*, Nob. (Journ. Acad. Nat. Sc.). Penultimate tarsal joint remarkably short above, hardly visible, but produced beneath into a dilated lobe, two-thirds the length of the ultimate joint.

48. *E. exstriatus*, Nob. This is the *E. geminatus*, Nob. (Ann. Lyc. N. Y.). Elytra destitute of striæ; joints of the tarsi, excepting the terminal one, with dilated lobes beneath. I change the name, as that of *geminatus* was previously given by Germar to a Brazilian species.

49. *E. bellus*, S. (Journ. Acad. Nat. Sc. III., p. 168.). The penultimate tarsal joint is dilated beneath into a lobe. A very pretty little species.

50. *E. binus*. Black; with two large testaceous spots on each elytron.—Inhab. Indiana.

*Body* black, with short yellowish hairs, almost sericeous, punctured: *clypeus* rounded at tip, somewhat prominent: *antennæ* scarcely serrate, rufous; second joint more than half as long as the third; terminal joint



not, or hardly, longer than the penultimate one : *thorax* on the lateral edge rectilinear from before the middle to the tip of the posterior spine, which is rather long, acute, carinate : *scutel* black : *elytra* with punctured striæ, and minutely punctured interstitial lines; on each a large testaceous spot, extending from the base nearly to the middle, not reaching the suture, and a smaller one beyond the middle : *pectus* in the middle piceous : *feet* honey-yellow : *tarsi*, penultimate joint minute, but extended beneath into a lobe, almost half the length of the ultimate joint.—Length from one-fourth to two-fifths of an inch.

51. *E. scapularis*. Clypeus concave; antennæ longer than the thorax; humerus yellowish.—Inhab. Indiana.

*Head* greenish black : *clypeus* somewhat prominent, obtusely rounded at tip, much indented above : *antennæ* longer than the thorax, serrate; second joint one-third the length of the third, which is dilated at tip like the following ones, and somewhat longer than the fourth : *thorax* greenish black, rather long; sides a little contracted before the spines; spines robust, not attenuated, rounded at tip and yellowish : *scutel* piceous : *elytra* dull yellowish on the basal margin; with rather deep striæ, punctured; interstitial lines rounded with transversely confluent punctures : *feet* piceous : *tarsi* with the second, third, and fourth joints dilated beneath into rather short lobes, that of the third much wider and more prominent; fourth joint more than half the length of the third; ultimate joint equal in length to the first, and equal to the second, third and fourth taken together.—Length less than two-fifths of an inch.

This is rather slender, and the yellowish bases of the elytra are distinguishing and obvious characters.

52. *E. acanthus*. Brown; clypeus concave above; spines compressed, short, rounded.—Inhab. Indiana.

*Body* rather slender, punctured : *head* blackish brown, with small punctures more distant than the length of their diameters : *clypeus* prominent, obtusely rounded before, and concave above : *antennæ* longer than the thorax, not serrate; second joint more than half the length of the third : *thorax* blackish brown; long, lateral edge rectilinear, hardly broader behind than before; anterior angles a little prominent, and slightly truncate; punctures not discoidal, small, profound, and more

distant than the length of their own diameters; spines very short, rounded at tip, compressed, without carina, and reflected a little from the side: *elytra* paler, with dilated, punctured striæ, and transverse wrinkles on the interstitial spaces: *beneath*, excepting the pectus, rather paler than the elytra: *tarsi*, second and third joints produced beneath into membranaceous lobes, that of the third more prominent; fourth joint minute, hardly wider than the base of the ultimate joint.—Length three-tenths of an inch.

Very much like *cucullatus*, S.; is smaller and more slender; the punctures of the head and thorax are not discoidal, as in that species, and the thoracic spines are entirely destitute of carina, are more obtuse, compressed, and reflected from the sides. Rare.

53. *E. claricollis*. Black; antennæ, mouth, and feet yellowish; thoracic spines very short, without carina.—Inhab. Indiana.

*Body* black, polished; punctures minute and remote: *clypeus* not prominent, tip a little reflected and rounded: *antennæ* hardly as long as the thorax, not serrate, yellowish; first joint robust; second joint but little shorter than the third; terminal joint not longer than the penultimate one: *mouth*, excepting the tip of the mandibles, honey-yellow: *thorax* polished, a little narrowed at the anterior angles; lateral edge almost rectilinear, or hardly perceptibly arcuated from near the anterior angles to the base; spines very short, obtusely rounded, without any carina: *scutel* large, angulated behind: *elytra* with punctured striæ; interstitial lines with minute, distant punctures: *pectus*, in the middle near the mouth, honey-yellow: *feet* pale yellow; *tarsi*, fourth joint small, but produced beneath into a dilated lobe; terminal joint shorter than the first.—Length one-fourth of an inch.

The thorax is remarkably polished.

54. *E. finitimus*. Dusky, obsoletely margined with rufous; tarsi, fourth joint lobate.—Inhab. N. Carolina.

*Body* with dense, small punctures, black brown: *vertex* longitudinally indented: *clypeus* obtusely rounded before, prominent: *antennæ* pale rufous, third joint a little longer than the second, terminal joint not obviously contracted abruptly towards the tip: *thorax* rather narrowed anteriorly, with an obsolete, dull, rufous margin and dorsal line;

posterior angles very slightly excurved, rather long, acute, with the carinated line very near to the edge: *scutel* dull rufous: *elytra* with the striæ impressed, not confluent, and in which the punctures are not very obvious; interstitial lines depressed; an obsolete, rufous, humeral spot, and another on the middle of the exterior submargin: *beneath* pale rufous: *feet* paler; penultimate joint of the *tarsi* with a membranaceous lobe.—Length three-tenths of an inch.

The body is more elongated than either *dilectus*, S., or *bisectus*, S. I am indebted to Dr Harris for an opportunity to examine a specimen.

55. *E. decoloratus*, Harris, MSS. Black; *elytra*, antennæ and feet rufous.—Inhabits New Hampshire and Pennsylvania.

*Body* blackish, with pale hairs, and minute punctures: *clypeus* with larger punctures than the thorax; two obsoletely impressed diverging lines; anterior edge subangulated, and the angles so depressed as to appear confluent with the anterior part of the head: *antennæ* rufous, a little hairy; second joint two-thirds the length of the third; last joint longer than the first, not abruptly contracted towards the tip: *thorax* convex, blackish; base with a fissure each side; posterior angles pointing backward, rather obtuse and somewhat broad, with the carinated line rather short, and not much elevated: *elytra* dull rufous; impressed, slightly punctured striæ, more deeply indented at base, and the third and fourth confluent before the tip: *feet* pale rufous; fourth joint of the *tarsi* not so distinctly lobed as the preceding joints.—Length half an inch.

Rare in Pennsylvania. Approaches the description of *E. semirufus*, Germar, which, however, I believe to be smaller.

††† *Tarsi dilated, operculiform.*

56. *E. marmoratus*, F. Our largest species of this division that I have seen. I have found it as far north as Canada, and Mr Nuttall presented me a specimen from Arkansa. It occurs both in Pennsylvania and Indiana, and Dr Harris sent to me a specimen which was found in N. Carolina. The thorax may be described as unequal, as it has several indentations; the pectus has deeply impressed tarsal grooves; and the clypeus is concave.

57. *E. operculatus*, S. (Ann. Lyc. N. Y.\*). Belongs to this division. Dr Harris sent me specimens from Massachusetts and New Hampshire.

58. *E. auroratus*. Blackish, sprinkled with golden scales; pectoral tarsal impressions not profound.—Inhab. New Hampshire.

*Body* blackish, punctured, with bright yellow scales: *clypeus* not conspicuously concave before: *thorax* convex; a longitudinal, impressed, but not much dilated line, obsolete on the anterior third; lateral edge regularly arcuated to the origin of the posterior angles, which are rather broad, acute, and extending outward and backward, with their exterior edge perfectly rectilinear to the tip; basal edge sinuous: *elytra* destitute of elevated lines at base: *pectus*, tarsal impressions not deeply marked, but distinct, concave: *tarsi* rufous.—Length eleven-twentieths of an inch.

Sent to me for examination by Dr Harris. The lateral edge of the thorax is not undulately arcuated, as in *E. marmoratus*, F., and *E. operculatus*, S.

59. *E. obtectus*. Thorax with a much dilated groove; elytra with elevated lines at base, one of which extends beyond the middle.—Inhab. Massachusetts.

*Body* blackish piceous: *clypeus* transversely concave before: *thorax* rather short and wide; dorsal groove much dilated, the top of its lateral elevations being equidistant from the middle of the exterior edge; exterior edge arcuated, not undulated; lateral margin broadly depressed; posterior angles rather broad, extending outwards and backwards, their exterior edge rectilinear to the tip: *elytra* with elevated, obtuse lines at base, one of which is obliquely elongated and is obsolete behind the middle: tarsal groove of the *pectus* none.—Length three-fifths of an inch.

For this species I am indebted to Dr Harris. It is as large as *marmoratus*, F., and *operculatus*, S., to the latter of which it approaches in being destitute of the tarsal grooves of the pectus, and in the short, wide thorax; but it differs from it in the more regular arcuation of the lateral edge of the thorax, the exterior edge of the posterior angles

\* [This is an error. There is no species in the Ann. Lyc. N. Y. bearing the name of *operculatus*. Is it not the *erosus*, S., Ann. Lyc., I., p. 258?—H.]

being rectilinear, and in the crimped appearance of the base of the elytra, &c.

60. *E. discoideus*, Weber.\* Remarkable by the golden hairy head and sides of the thorax. This is the *pennatus*, Fabr.; but Weber's name has the priority, and must therefore be adopted.

61. *E. lepturus*. Blackish; spines acute; elytra with approximated series of punctures.—Inhab. U. S.—Pennsylvania, Indiana, and North Carolina. Harris.

*Body* black-brown, punctured, rather slender: *clypeus* concave, truncate at tip, and emarginate each side at the insertion of the antennæ: *antennæ* rufous, serrate; second joint not half the length of the third: *thorax* with a dorsal, slightly indented line; lateral edge not arcuated; a little narrowed before, and contracted at the spines; spines excurved, acute: *scutel* rounded behind: *elytra* with approximate series of deep punctures, with an appearance of striæ, the series alternately larger: *pectus*, tarsal grooves obvious.—Length two-fifths of an inch.

Resembles *discoideus*, Weber, but is always destitute of the golden hair of the head and thorax. It is the *lepturus* of Melsheimer's Catalogue.

62. *E. impressicollis*, S. (Ann. Lyc. N. Y., I., p. 260.). Resembles *lepturus*, S.; but may be distinguished by its ferruginous colour.

63. *E. rectangularis*, S. (Ann. Lyc. N. Y., I., p. 263.). The posterior angles of the thorax are rectangular, and the antennæ remarkably short.

64. *E. avitus*. Blackish; rather long; scales yellow and black; spines acute, hardly excurved.—Inhab. Indiana.

*Body* black, with a slight tinge of piceous, punctured; scales intermixed, black and bright yellow; rather slender: *clypeus* hardly elevated before; anterior edge very obtusely arcuated, a little concave: *antennæ* serrate, rufous; second joint small, subglobular: *thorax* with an obtusely indented line behind the middle; lateral edge very slightly arcuated, and slightly excurved at the spines; spines very slightly excurved, acute, not carinated: *scutel* concave, rounded behind: *elytra*

\* "Observationes Entomologicæ." This work, which was presented to me by Professor Wiedeman, was published in the same year with the Syst. Euleut.; but, as Fabricius quotes Weber's work, the priority of the latter is evident.

with hardly perceptible, raised, obtuse lines; punctures profound, densely and irregularly set: *feet* piceous: *pectus*, tarsal grooves none.—Length eleven-twentieths of an inch.

Smaller than *E. marmoratus*, F., and more slender, with a more equal thorax; larger than *E. lepturus*, S., *discoideus*, Weber, *impressicollis*, S., and *rectangularis*, S., and the punctures of the elytra are not in regular series. It seems to approach nearer to *E. operculatus*, S., but the elytra are more obtuse at tip, and have much more profound, large, and close set punctures. I have not now an entire specimen of the latter species, and therefore cannot compare with the anterior part of the body.

†††† *Claws pectinated.*

65. *E. corticinus*, S. (Journ. Acad. Nat. Sc., III., p. 174.). The second and third joints of the antennæ are rounded, equal. The basal margin of the thorax has a fissure each side, near the lateral spines. It varies in size. The smallest one that I have seen is seven-twentieths of an inch. Can it be the *dispar* of Herbst?

66. *E. cinereus*, Weber. Second joint of the antennæ about half the length of the third: the thorax is more rounded at the sides than the preceding. It varies considerably in size. The basal margin of the thorax has a fissure each side.—Length from three-tenths to seven-tenths of an inch. The former size is rare; but the more usual length is about half an inch.

This is the *vulgaris* and *pilosus* of Melsheimer's Catalogue. It resembles the *brunnipes*, Ziegler; but the thoracic punctures are rather larger, and less crowded, the thoracic spines are longer and more acute, and the second joint of the antennæ is a little longer in proportion to the third.\*

\* [Among Mr Say's manuscripts is a description of the *cinereus*, under the rejected name of *fissilis*, which, as it contains the characters of this species somewhat in detail, it may be proper to insert here.]

*E. fissilis*. Brown; base of the thorax with a fissure near the posterior angles.—Inhab. U. S.

*Body* chestnut-brown, punctured, somewhat sericeous with short hairs: *head* convex: *clypeus* rounded at tip: *antennæ* rufous; second joint half as long as the third; ultimate joint not abruptly contracted near the tip: *thorax* with the lateral edge regularly arcuated, not con-

67. *E. communis*, Schönherr, is much like the preceding, but the thorax is canaliculate.

68. *E. insipiens*, S. (Ann. Lyc. N. Y., I., p. 267.). The fissure in the posterior margin of the thorax, near the spines, is distinct.

69. *E. recticollis*, S. (Journ. Acad. Nat. Sc., III., p. 168.).\*

Distinguished from the preceding species by the lobed joints of the tarsi. In those species the joints have projecting hairs beneath, but not lobes. The clypeus descends rather low, and is almost rectangular at tip.

70. *E. quietus*. Black; antennæ and labrum rufous; palpi and feet pale yellow.—Inhab. Indiana.

*Body* black-brown; sericeous with short, yellowish hairs; slender; with numerous, minute, but not close set punctures: *clypeus* very obtusely angulated in front, almost rounded: *antennæ* rufous, not serrate; first joint rather long, and a little arcuated; second and third joints subequal, the second rather longer and more robust: *labrum* rufous, prominent: *thorax* rectilinear on the lateral edge from near the ante-

tracted near the spines; spines rather short and somewhat obtuse, sub-bicarinatæ; basal margin, near the lateral spines, with a distinct fissure: *elytra* with punctured striæ, and depressed, minutely punctured interstitial lines; suture somewhat paler: *feet* dull rufous: *tarsi* beneath with rather dense hairs: *nails* pectinated.—Length over half an inch.

The thoracic fissures readily distinguish this species. I formerly marked it in my cabinet interrogatively as the *brevicollis*, Herbst; but it can hardly be that species, as no notice is taken of the fissures. Can it be the *cinereus*, Weber?

\* [The following description, which was marked to be omitted by Mr Say, contains several characters not laid down in the Journal of the Acad. Nat. Sciences on the page above quoted. It seems to apply rather to a variety of the *recticollis* that was proposed originally by Mr Say as a distinct species, under the name of *E. inscius*, but was subsequently referred to the previously described *E. recticollis*. For the reasons above stated, it may be useful to insert the rejected description in this place. T. W. H.]

*E. recticollis (inscius, S., MSS.)*. Brown; clypeus subangulated before; suture dusky.—Inhab. Indiana.

*Body* light brown, somewhat sericeous, with yellowish hairs, and with numerous minute punctures: *clypeus* but little elevated, tip obtusely angulated: *antennæ* hardly serrate, pale rufous; first joint rather long, arcuated, robust; second and third joints subequal: *head* dusky: *thorax* dusky on the middle; lateral edge nearly rectilinear, arcuated at the anterior angles, and a little excurved at the spines; not elongated; spines acute, not carinate; posterior edge with a fissure from which a line extends forward upon the margin: *elytra* with punctured striæ and minute punctures on the interstitial lines; sutural margin dusky: *beneath* piceous: *pectus* honey-yellow: *feet* honey-yellow: *tarsi*, third and fourth joints lobed beneath.—Length less than one-fourth of an inch.

rior angles, where it is hardly arcuated, to the tip of the spines; spines acute, carinate; the carina, as in the preceding species, forms the apparent edge, and extends more than half the length of the thorax; posterior edge with a fissure each side, extending in an obvious line upon the margin: *scutel* angulated obtusely behind: *elytra* with punctured striæ and minutely punctured interstitial lines: *beneath* black piceous: *feet* pale yellow; *tarsi*, third and fourth joints lobed beneath; *nails* pectinated with but few rather robust teeth.—Length less than one-fifth of an inch.

Closely resembles the preceding, but is more slender, the pectens of the nails have fewer teeth, and the clypeus is much more obtuse at tip, and the colour is different.

71. *E. pertinax*. Black; antennæ and feet rufous; punctures sparse.—Inhab. Pennsylvania. Massachusetts, Harris.

*Body* black, immaculate, with distant grayish hairs: *clypeus* with large punctures, anteriorly obtusely rounded and elevated, the edge a little reflected: antennæ rufous; third joint a little longer than the second: *thorax* with distant punctures and hairs; lateral edge nearly rectilinear behind the middle, the posterior angles divaricating but slightly outwards; base with the lateral fissures rather long: *elytra* with regular series of punctures, the striæ not being impressed, excepting at base and the sutural one: *feet* rufous.—Length seven-twentieths of an inch.

72. *E. tenax*. Black; antennæ and feet rufous; posterior thoracic angles not excurved.—Inhab. Massachusetts.

Closely resembles *E. pertinax*, S., but is much smaller; the punctures of the thorax are much more numerous, the posterior angles not at all excurved: *elytra* with the striæ distinctly impressed and punctured, the interstitial spaces with rather large punctures: *feet* rufous.—Length less than three-tenths of an inch.

For this species I am indebted to Dr Harris.



EUCNEMIS, *Ahrens?* *Mannerheim.*

† *Pectus* not inflected at the edge, nor canaliculate beneath, to receive the antennæ.

\* *Tarsi* simple.

1. *E. muscidus*, S. (*Elater muscidus*, Ann. Lyc. N. Y., I., p. 256.). The largest known species of the United States.

2. *E. unicolor*, S. (*Elater unicolor*, Ann. Lyc. N. Y., I., p. 255.). Also a large species.

3. *E. heterocerus*. Light brown, sericeous; three last joints of the antennæ largest.—Inhab. Indiana.

*Body* light reddish brown, sericeous, with bright yellow hair; punctures minute, universal: *antennæ*, first joint as long as the three next together; second joint smallest; third nearly as long as the two next; fourth, fifth, sixth, seventh and eighth short, equal; remaining joints each nearly as long as three of the preceding ones together, and somewhat dilated: *thorax* with an indented line at base; spines prominent, acute: *scutel* rounded behind: *elytra* with impunctured striæ: *pectus* on the lateral margin slightly concave.—Length half an inch.

The singular form of the antennæ will distinguish this fine species from any other yet known. It will form a separate genus.

4. *E. quadricollis*. Head and thorax with large crowded punctures; posterior thoracic angles nearly rectangular.—Inhab. Indiana.

*Body* piceous black, with yellowish hairs: *head* with crowded, large punctures, longitudinally confluent on the vertex: *antennæ* rather distant at base, not seated in approximated sinuses, but under frontal elevations; second joint more robust than the third, and equally long; fourth joint rather longer than the third; remaining joints obconic, subequal, the last a little longer: *palpi*, terminal joint oval: *thorax* transverse quadrate, with punctures like those of the head, but not much confluent; anterior angles rounded; lateral edges nearly parallel, very slightly contracted towards the posterior angles, which are nearly rectangular, a little acute, not continued backward beyond the line of the base: *elytra* with punctured striæ and minutely punctured interstitial lines: *pectus* with less crowded punctures than the thorax:

middle segment very broad; no groove: *feet*, like all beneath, dark piceous; *tarsi* a little paler.—Length over one-fourth of an inch.

This species is not perhaps in all its characters perfectly coincident with those of the genus, particularly in the remote origin of the antennæ; but the form of the præsternum and the great inflection of the head agree very well.

5. *E. frontosus*. Antennæ submoniliform; thorax indented each side of the middle.—Inhab. Indiana.

*Body* blackish piceous, with short yellowish hair, punctured: *front* longitudinally indented: *antennæ* ferruginous, serrato-moniliform; basal joint arcuated, obliquely truncated at tip; second joint arcuated at base: *thorax* with a longitudinal impressed line, and an indentation each side of the middle; posterior angles prominent: *elytra*, striæ not deeply impressed: *feet* piceous.—Length one-fifth of an inch.

The very short and submoniliform joints of the antennæ, as well as the general form of the body, give to this species a resemblance to the *monilicornis*, Mannerh., but the thoracic indentations, &c. distinguish it.

6. *E. ruficornis*, S. (*Melasis ruficornis*, Journ. Acad. N. S., III., p. 165.). This species, having a very small spine, and slight indentation instead of a recipient cavity, may perhaps be placed here. By the very robust antennæ it seems to approach the genus *Nematodes*, Latr.

7. *E. obliquus*. Elytra black, inner portion, bounded by a line from the middle of the base to beyond the middle of the length, yellowish.—Inhab. Indiana.—Length less than one-fifth of an inch.

In general form, and in its antennæ, this species resembles the *ruficornis*, S.

\* \* *Tarsi, terminal joint short and dilated.*

8. *E. atropos*. Thorax with two impressed dots and dorsal line.—Inhab. Indiana.

*Body* blackish piceous, somewhat sericeous, with bright yellow hair, minutely punctured: *head* with the hairs radiating from the middle of the front: *antennæ*, first joint as long as the three next together, hardly arcuated; second joint at least as long as the fourth; third nearly equal to the fourth and fifth together; remaining joints rather larger than the fourth and fifth: *thorax* convex before, almost vertical at the sides;

like the head, dark chestnut; a well impressed dot each side, a little before the middle; an impressed, acute, longitudinal line behind the middle, extending obsoletely to the anterior edge; spines prominent, acute: *scutel* with a slightly impressed line: *elytra* blackish, with impunctured striæ; punctures towards the base somewhat transversely confluent: *pectus* with the lateral margin slightly concave: *tarsi*, penultimate joint extended beneath into a lobe, a little dilated and truncated.—Length three-tenths of an inch.

Behind each of the dots of the thorax is an abbreviated, obsolete, impressed, transverse line. The dots of the thorax are more anterior than those of the *pygmæus*, Fabr.

†† *Pectus canaliculate on the lateral margin.*

9. *E. calceatus*. Reddish brown: an elevated line on the front over the base of the antennæ.—Inhab. Indiana.

*Body* reddish brown, or chestnut, slightly sericeous, and with minute punctures: *head* blackish, with an obvious, transverse, raised, glabrous line over the antennæ, a little advanced in the middle: *antennæ* chestnut; first joint about as long as the head, somewhat robust, obliquely truncated at the end; second hardly shorter, but less robust than the third, attenuated and arcuated at base, at its junction with the first joint; fourth joint a little shorter than the third; remaining joints gradually a little longer to the tip, subequal: *thorax* dusky, not elevated; dorsal line hardly perceptible, even at base; spines prominent, acute: *elytra* rather slightly striate; striæ impunctured: *beneath* particularly sericeous: *pectus* with the lateral groove well marked: *tarsi*, penultimate joint with a short, rather broad lobe beneath.—Length from one-fifth to three-tenths of an inch.

10. *E. cylindricollis*. Black; thorax longitudinally and widely indented behind.—Inhab. Indiana.

*Body* blackish, a little sericeous, subcylindric, minutely punctured: *antennæ* dark rufous, shorter than the thorax; first joint cylindrical, hardly arcuated, at base rather abruptly narrowed, at tip obliquely truncated, blackish; second joint obconic, attenuated and arcuated at base; third longer than the two following ones together; remaining ones to the last, subequal; terminal one nearly as long as the third: *thorax*

obscurely subiridescent, subcylindric, the sides being almost parallel; not remarkably elevated; behind the middle a much dilated, oblong triangular, rather deeply indented line, extending to the base; spines acute, not much elongated: *scutel* rounded at tip: *elytra* with the striae obsolete, the subsutural obvious: *pectus* with the lateral groove very obvious: *tibiae* and *tarsi* rufous; penultimate tarsal joint produced beneath into a dilated, obtuse lobe.—Length less than three-tenths of an inch.

The dilated, elongate triangular indentation, or dilated dorsal line, extending from the undule to the base of the thorax, is probably somewhat similar to that of the *capucinus*, Ahrens; but the general form is much more cylindric.

11. *E. clypeatus*, S. (*Elater c.*, Ann. Lyc. N. Y., I., p. 266.).

12. *E. amænicornis*. Black; antennæ pectinate, second and third joints, and feet rufous.—Inhab. Indiana and New Hampshire.

*Body* small, black, densely punctured above and beneath: *antennæ* with a process on each joint excepting the three basal ones, black, the second and third joints dull rufous: *thorax* convex, simple; posterior angles a little excurved, acute, without carinated line; base without fissures: *elytra*, third and fourth striae only half the length of the *elytra*: *feet* rufous.—Length over three-twentieths of an inch.

Resembles *E. pygmæus*, Fabr., but the thorax is without indentation. I obtained two specimens in Indiana, and received one from Dr Harris.

††† *Pectus canaliculate each side of the middle.*

13. *E. triangularis*, S. (*Elater t.*, Journ. Acad. N. S., III., p. 170.).

*Antennæ*, first joint slightly arcuated, obliquely truncate at tip; second obconic, small, arcuated at base: *thorax* with an impressed line behind the middle; anterior margin piceous.

It occurs in Indiana as well as Missouri.

14. *E. humeralis*. Black; *elytra* rufous at base.—Inhab. Indiana.

*Body* black, minutely punctured, and with minute hairs; *front* with an obsolete indented line: *antennæ* rather hairy; first joint slightly arcuated, obliquely truncate at tip; second obconic, arcuated at base; third shorter than the two following ones together; remaining joints

subequal, to the last, which is a little longer; *thorax* convex, but not much elevated: *elytra* striate; basal fourth rufous: *feet* rufous: *pectus* distinctly canaliculate each side of the middle.—Length three-twentieths of an inch.

*Note*.—I am indebted to Count Mannerheim of St Petersburg, Russia, for his excellent observations on this genus. His descriptions are detailed and perspicuous. I have adopted, for the present, his views of this genus.

### THROSCUS, *Latr.*

#### *T. constrictor.*

This species is the approximate analogue of the *adstrictor*, Fabr., of Europe, to which I had always referred it: but on comparing our insect with a specimen of the *adstrictor*, for which I am indebted to the politeness of Professor Germar, I am inclined to consider it a distinct species, and I give to it the above name, which that distinguished entomologist proposes in his letter. This insect, compared with the *adstrictor*, is of a paler colour, and a little different in form; being less attenuated behind; in size it is much the same; it is also somewhat more obviously punctured.